

REMARKS/ARGUMENTS

Applicant would like to thank the Examiner for the careful consideration given the present application. Reconsideration of the subject patent application in view of the present remarks is respectfully requested.

Claims 1, 8 and 12 are amended.

New claims 18-20 are added.

Claim Rejections - 35 USC § 103

Claims 1, 3, 8, 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCammon et al (US 4,556,772; hereinafter "McCammon") in view of JP 63174296A, Benveniste et al (US 6,759,665; hereinafter "Benveniste") and Yoshimura et al (JP 54048348; hereinafter "Yoshimura"). Applicants respectfully request withdrawal of the rejection for at least the following reasons.

Regarding the amended claim 1, none of McCammon, JP 63174296A, Benveniste and Yoshimura, alone or in combination, discloses, teaches or renders foreseeable that a distance between an antenna of the magnetron and a center of the opening area of each of the electricity feeding port at a position proximate to the center of the ceiling wall and the electricity feeding port at a position remote from the center of the ceiling wall is $g/2$ multiplied by an integer, wherein g is a wavelength of the microwave propagated at an inside of the waveguides.

McCammon, JP 63174296A and Yoshimura are silent about a relationship between the above distance and the wavelength of the microwave.

The Office action states that Benveniste discloses the relationship between the above distance and the wavelength of the microwave. However, since Benveniste is silent about aligning the plurality of electricity feeding ports in a front and rear direction of the ceiling wall, there is no disclosure in Benveniste that a distance between an antenna of the magnetron and a center of the opening area of each of the proximate and remote electricity feeding ports is $g/2$ multiplied by an integer. Although Benveniste discloses the coupling ports or slots 254 located at $1/2$ wavelength locations (Benveniste; column 12, lines 43-48), none of the coupling ports or slots 254 is aligned in a front and rear direction of the ceiling wall. Accordingly, the combination of McCammon, JP 63174296A, Benveniste and Yoshimura does not meet all of the limitations of claim 1.

Also, Benveniste is not combinable with any of McCammon, JP 63174296A and Yoshimura. Although a rigid "teaching, suggestion, or motivation" test (TSM test) is not an appropriate test for obviousness inquiry, it is still required to show a reason for combining the elements in the manner claimed (KSR International, Co. v. Teleflex Inc., 550 U.S. 398). Here, as described above, Benveniste is silent about aligning the plurality of electricity feeding ports in a front and rear direction of the ceiling wall. Accordingly, there is no reason for combining Benveniste with any of McCammon, JP 63174296A and Yoshimura for obviousness inquiry.

Therefore, the asserted combination of McCammon, JP 63174296A, Benveniste and Yoshimura does not render claim 1 obvious. Thus, withdrawal of the rejection as it applies to claim 1 is respectfully requested.

Similar arguments apply to claim 12. The other rejected claims are dependent from either claims 1 or 12, and therefore the same argument will apply to these claims.

In addition, regarding the amended claim 8, none of McCammon, JP 63174296A, Benveniste and Yoshimura, alone or in combination, discloses, teaches or renders foreseeable that a heating member is attached to the ceiling wall of the heating chamber. The Office action states that JP 63174296A also discloses a heating member is mounted to the ceiling wall of the heating chamber (12). However, according to Figure 2 of JP 63174296A, the heating member (18) is not attached to the ceiling wall (14) of the heating chamber (13), but is attached to the side walls of the heating chamber (13).

Also, regarding claim 11, none of McCammon, JP 63174296A, Benveniste and Yoshimura, alone or in combination, discloses, teaches or renders foreseeable that the heating member is positioned such that a horizontal centerline of the heating member is located above the opening areas of the plurality of feeding ports. According to Figure 2 of JP 63174296A, the heating member (18) is not located above the opening areas of the plurality of feeding ports (17, 17), but below the opening areas of the plurality of feeding ports (17, 17).

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over McCammon in view of JP 63174296A, Benveniste and Yoshimura, and further in view of JP 62100982A or Smith (US 3,210,511). Applicants respectfully request withdrawal of the rejection for at least the following reasons.

Claim 2 is dependent from claim 1. Thus, all of the limitations of claim 1 are included in claim 2. For the same reason as claim 1, claim 2 should be allowable. JP 62100982A or Smith is merely cited for the arrangement of the antenna.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over McCammon in view of JP 63174296A, Benveniste and Yoshimura, and further in view of Noda et al

(JP05074568a; hereinafter "Noda"). Applicants respectfully request withdrawal of the rejection for at least the following reasons.

Claim 9 is dependent from claim 1. Thus, all of the limitations of claim 1 are included in claim 9. For the same reason as claim 1, claim 9 should be allowable. Noda is merely cited for the inclination of the heating member.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over McCammon in view of JP 63174296A, Benveniste and Yoshimura, and further in view of DeRemer (US 4,307,285). Applicants respectfully request withdrawal of the rejection for at least the following reasons.

Claim 15 is dependent from claim 1. Thus, all of the limitations of claim 1 are included in claim 15. For the same reason as claim 1, claim 15 should be allowable. DeRemer is merely cited for the arrangement of the heating member in a recessed portion of the ceiling wall of the heating chamber.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over McCammon in view of JP 63174296A, Benveniste and Yoshimura, and further in view of Miller (US 4,463,239). Applicants respectfully request withdrawal of the rejection for at least the following reasons.

Claim 17 is dependent from claim 12. Thus, all of the limitations of claim 12 are included in claim 17. For the same reason as claim 12, claim 17 should be allowable. Miller is merely cited for the width of the waveguide.

Regarding new claim 18, none of the references discloses that the opening area of the electricity feeding port at a position proximate to the center of the ceiling wall reaches the second end of the upper waveguide. The opening area of one of the electricity feeding ports 21 in JP

63174296A which is at a position proximate to the center of the ceiling wall does not reach the end of the upper waveguide 19.

Regarding new claim 19, none of the references discloses that both the opening area of the electricity feeding port at a position proximate to the center of the ceiling wall and the opening area of the electricity feeding port at a position remote from the center of the ceiling wall reach the second end of the upper waveguide. None of the opening areas of the electricity feeding ports 21 in JP 63174296A reaches the end of the upper waveguide 19.

Regarding new claim 20, none of the references discloses that a distance between the second end of the upper waveguide and an antenna of the magnetron is g multiplied by an integer.

In consideration of the foregoing analysis, it is respectfully submitted that the present application is in a condition for allowance and notice to that effect is hereby requested. If it is determined that the application is not in a condition for allowance, the examiner is invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present application.

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If there are any additional fees resulting from this communication, please charge same to our Deposit Account No. 16-0820, our Order No.: NGB-38340.

Respectfully submitted,

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